

ABSTRACT

A honeycomb filter for purifying exhaust gases includes columnar porous ceramic members and an adhesive layer combining the ceramic members with one another. Each porous ceramic member has a partition wall and through holes. The through holes are extending in parallel in length direction of the ceramic members. The partition wall is separating the through holes and filters particulates in exhaust gas. The through holes include ones sealed at inlet side of the ceramic members and ones sealed at outlet side of the ceramic members such that the exhaust gas enters from the inlet side, passes through the partition wall and flows out from the outlet side. The adhesive layer has thermal expansion coefficient α_L . The ceramic members have thermal expansion coefficient α_F . The thermal expansion coefficient α_L of the adhesive layer and the thermal expansion coefficient α_F of the ceramic members satisfy relationship, $0.01 < |\alpha_L - \alpha_F|/\alpha_F < 1.0$.